BAY OF PLENTY REGIONAL COUNCIL
TOI MOANA

How to apply for a water take consent

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Bay of Plenty Regional Council
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NEW ZEALAND

Executive summary

This document contains guidance for new water take applicants consistent with Plan Change 9 (PC 9) to the Regional Natural Resource Plan (RNRP). The document provides general information on:

- the purpose of this document and what it is trying to achieve;
- information you should know before you prepare your resource consent application (consent application) including:
  - some common water terminology;
  - estimating how much water you require;
  - determining the allocation status for your water resource and implications of full or over-allocation;
  - the applicable rules for when you need a consent to take water;
  - aspects that need to be considered before applying for a consent to take (drilling the bore, permits required and pump tests).
- preparing the consent application under the Resource Management Act 1991 (RMA) including:
  - a list of what to include in your consent application.
  - describing the existing environment;
  - matters if you are replacing a consent;
  - considering effects on the environment and people;
  - possible mitigation options;
  - consultation;
  - monitoring;
  - statutory assessments.
- what to expect after you have lodged your consent application and the matters we consider when we process your consent application:
  - assessing whether the consent application is complete and further information requests;
  - notification assessment;
  - decision-making.

Ultimately, this document will help you identify the route you should (or could) follow so that it minimises time delays, reduces costs and provides a clear path through the consent process. For a simplified flow diagram of the steps you should take towards obtaining a consent to take water, see the rear of this document.

Contents

Part 1:
Purpose of this guidance document

This document has been prepared as a guide through the process of applying for a water take resource consent. It is intended to help you identify key matters you need to address and highlight a pathway through the process, ultimately saving you time and cost. It will show you how to provide a 'complete and adequate' resource consent (RC) application to take water in accordance with Plan Change 9 (PC 9) of the Regional Natural Resources Plan (RNRP).

This guidance document has three goals:

1 Show you how to plan for your consent application (Part 3:).

2 Describe what you need to provide in your consent application (Part 4:).

3 Outline the process once you have lodged your consent application (Part 5:).

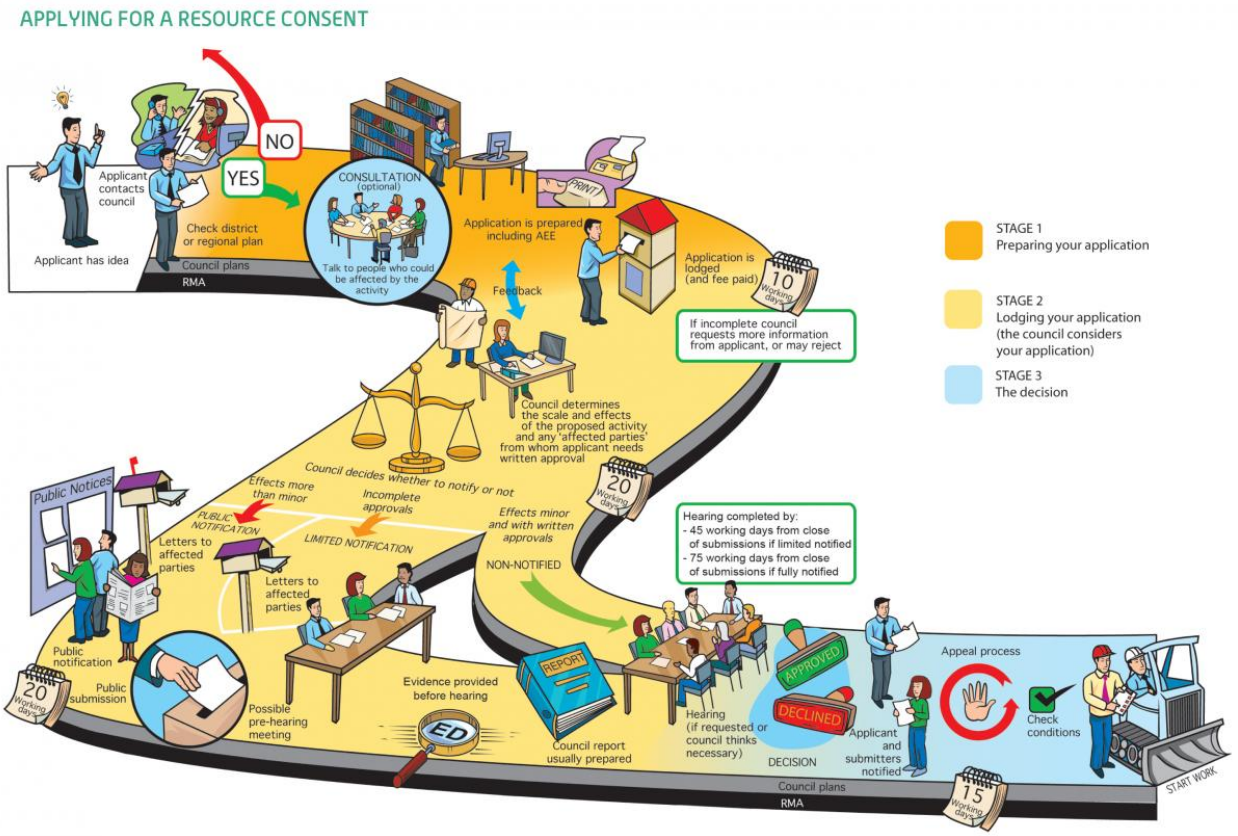
An application can be returned to you (i.e. we don't accept it for processing) because it is incomplete as it does not have sufficient supporting information. Alternatively if it has included key requirements but is unclear, we may accept it, but you may be asked for additional information to fill in the gaps. By following this guide, you will be in the best position to have your application accepted for processing, minimise further questions and will understand the consent application process. It should help you to be aware of potential outcomes such as a publically notified consent application, a declined consent or unexpected water management issues.

The management of New Zealand's valuable freshwater resources is evolving. PC 9 is part of this evolution and raises the bar for the level of information required to support consent applications. The level of information required to support your consent application depends on the size of your water take, location and the potential effects it may have.

Important note: Use of this document does not guarantee that your consent application will be successful. The outcome of your consent application is subject to your proposed activity, the activity status, sensitivity of the environment, effects of/on the water resource and the quality of your consent application. However, this document does help to highlight risks, and helps to identify a path towards achieving your desired outcome. This document does not include what you should consider if constructing a dam, diverting water, or taking geothermal water.

It is expected that when reading this document and preparing a consent application, you are referring to the relevant sections of PC 9 that are mentioned. We understand water management issues are often complex. It is our role to help you through the process, so please feel free to ask us about any aspects of this document, PC 9, or the RMA that you do not understand. Alternatively, you can engage a consultant to undertake any of this work on your behalf.

The following diagram has been prepared by the Ministry for the Environment and gives an overview of the resource consent application process. This diagram is indicative only but shows the key stages which are further described in this document.



Source: Ministry for the Environment, March 2015.

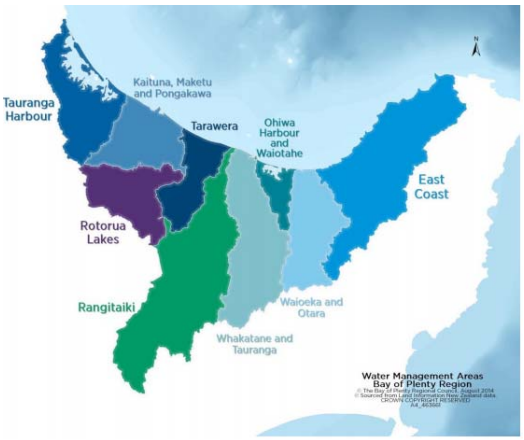
Part 2: Introduction

2.1 PC 9 – What's changed and what is it trying to achieve?

Throughout the Bay of Plenty, water take and use is governed by the Regional Natural Resources Plan (RNRP)[1] and the Tarawera River Catchment Plan (TRCP)[2]. PC 9 is a variation to the RNRP to modernise water resource management in the region. In summary and amongst other things, PC 9:

- Introduces a framework for calculating and implementing sustainable interim allocation limits while phasing out existing over-allocation by 1 October 2027;
- Tightens the groundwater volumes you can take without consent to 15 m^3/day for properties less than 5 ha and up to 35 m^3/day for properties more than 5 ha (subject to other criteria being met);
- Requires us (in most circumstances) to decline new consents in over-allocated water resources including those for volumes that would normally be permitted activities. The exception to this is for those of you who currently do not have consent but who took water before 16 October 2016 in certain circumstances (see section 2.2 to check whether this applies to you);
- Provides for water harvesting, secondary flow allocations and water transfers as an alternative to over-allocation;
- Recognises that groundwater takes can affect surface water flow;
- Requires us to safeguard the mauri[3] of water bodies and consider effects on tangata whenua (iwi) values;
- Recognises the importance of domestic, marae and municipal water; and
- Improves and tightens water metering requirements.

PC 9 presents a range of new rules, objectives and policies that will replace the water allocation chapter in the RNRP. It is the first step we are making to improve water resource allocation. In the future, we will set specific limits for new Water Management Areas (WMAs) throughout the region. This will change the rules, objectives and policies again in each WMA, but until then, PC 9 (and TRCP) is the relevant legislation.



Map WQ 1 Water Management Areas

[1] Geothermal water takes are governed by the RNRP and the Rotorua Geothermal Regional Plan.

[2] Only if you're in the Tarawera River Catchment.

[3] The essential life force, energy or principle that tāngata whenua believe exists in all things in the natural world, including people. Tāngata whenua believe it is the vital essence or life force by which all things cohere in nature. When Mauri is absent there is no life. When Mauri is degraded, or absent, tāngata whenua believe this can mean that they have been remiss in their kaitiakitanga responsibilities and this affects their relationship with the atua (Māori gods). Mauri can also be imbued within manmade or physical objects.

2.2 Exceptions in fully or over-allocated water resources

This section applies to you if you currently do not have consent but took water before 16 October 2016 for any of the following:

- take water (surface water or groundwater) for dairy shed use; or
- take groundwater (for any use); and
- take between 15 and 35 m^3/day but whose property is less than 5 hectares.

If you fall into one of the categories above, you have a 12 month amnesty period to lodge a consent application as a 'controlled activity'. This is very beneficial to you because:

- you do not need to perform a pump test for a groundwater take (normally a requirement); and
- the decision-maker must grant your consent without public notification, even if you are in a fully or over-allocated water resource.

Note: If you are one of these exceptions but lodge after this 12 month amnesty period:

- you will have to apply under a less favourable activity status (not controlled) which will enable the decision maker to publically notify and decline your consent if you are in a fully or over-allocated resource (see PC 9 Policy WQ P10); and
- you may face enforcement action if you continue to take water (even while applying for a consent).

2.3 Planning your consent application

There is a logical sequence of steps in the process of securing a resource consent to take water. We want you to avoid spending a large amount of time (and potentially money) drilling bores/pumps, purchasing/installing intake screens and preparing a consent application if there is something important you could have learned about early on which may influence the outcome of the consent process and ultimately your investment decisions. Part 3: and most importantly Part 4: , show you the steps you should take to prepare an adequate and complete consent application. In summary this includes:

1 Calculating how much water you need (see section 3.2).

2 Assessing whether your water resource is under-allocated, fully allocated, or over-allocated (see section 3.3).

3 Determining whether or not you require a resource consent (in some cases you will not) (see section 3.2).

4 For groundwater takes, drilling and pump testing your bore (see section 3.5).

5 Preparing an AEE and/or application that includes information as required by Schedule 4 of the RMA (see Part 4:).

Part 3:
Before you begin preparing a consent application

3.1 Common water terms

The following provides an overview of specific water resource terminology and may give you some useful background information to help you prepare your consent application.

3.1.1 What is an aquifer?

An aquifer is an underground layer of water-bearing permeable rock or sediment (e.g. gravel or sand) from which groundwater can be extracted using a bore. Groundwater bores are drilled down into the aquifer. A bore pump is usually required to lift groundwater from an aquifer to the surface.

Unconfined aquifer: In very basic terms, an unconfined aquifer is shallow and extends to the land surface. Unconfined aquifers normally have a strong connection to surface water bodies.

Confined aquifer: In very basic terms, a confined aquifer is typically deeper and more isolated from the surface by layers of less permeable geology. In some places, the groundwater pressure is high enough for the groundwater to rise up to the surface and flow freely from the bore (if the bore is uncapped or when in use). These are called free flowing artesian bores.

Note: While it is useful to categorise aquifers into these two groups, care should be taken as there is a level of connection between all aquifer systems.

3.1.2 What is surface water?

Surface water is water that flows over-land and can be taken directly without the use of an underground bore. Surface water sources can include drains, streams, rivers, ponds, dams, lakes and reservoirs. If you do not meet the permitted activity guidelines (see section 3.4), you will need consent to ‘take water’ regardless of what type of surface water it is, or how it is defined.

3.1.3 Integrated water management

Although we conveniently provide separate descriptions of ‘unconfined’ and ‘confined aquifers’ and ‘groundwater’ and ‘surface water’, the reality is that they are interconnected components of the water cycle. Water can move from one source to the other. For example, pumping from groundwater bores can ultimately reduce the flow in rivers and streams, or coastal groundwater discharge. This interaction between water resources can make water management complex. Taking water from one water source can affect another. The timing of when these effects happen can also change depending on a number of factors. PC 9 recognises this through Policy WQ P9 and requires us to manage ground and surface water as an integrated resource.

3.2 Water demand - estimating how much water you need

As fresh water resources become increasingly allocated, we need to make sure people only take what they need and can use so that other prospective water users have access to this water.

Before you submit your application to take water you will need to calculate how much water you need and decide how it will be used. The amount of water required is likely to vary throughout the year, for example you may only need to take water to irrigate crops over the summer months.

You should estimate the maximum quantity you need at any one time, the maximum quantity you require per day, as well as the total volume you need over a year. When we evaluate your application, we will check that the quantity of water you've asked for is reasonable, and that the water will be used efficiently. It is recommended that you provide as much detail as possible on how the water will be used. Depending on the complexity, you may need to seek advice from a consultant to help provide this information.

PC 9 outlines how much water is considered efficient for some activities. These are noted in summary below, as well as other guideline estimates that are not listed in PC 9:

Domestic use: Up to 200 litres per person per day.

Stock drinking: Up to 70 litres per day for lactating cows and 45 litres per day for dry cows).

Dairy shed wash down: Up to 55 litres per animal per day, but ideally determined based on actual measured usage. This is detailed in Rule WQ R4 of PC 9.

Irrigation: You should use a field validated model (to 15% accuracy) that considers land use, crop water use requirements, on site physical factors such as soil water holding capacity, and climatic factors such as rainfall variability and potential evapo-transpiration. This is described in Schedule 7 of PC 9.

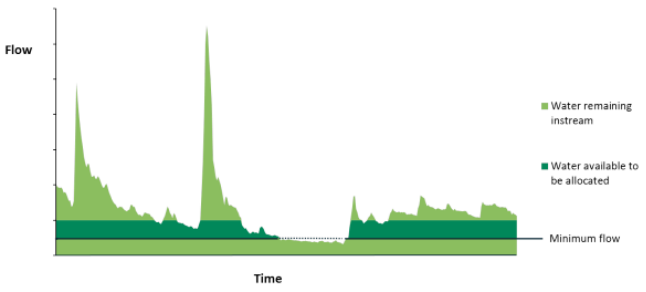
You can use your own calculator (that meets the above requirements), however if required, we have a licence for a crop water demand calculator called SPASMO to estimate your irrigation needs. We can run this calculation for you at no cost if your query is straightforward. To complete this you need to provide a map of the proposed irrigation area with the crop types mapped out.

3.3 Is water available for new takes? Allocation limits

3.3.1 Calculating water allocation

Water allocation limits specify the maximum quantity of water that can be taken from a defined water resource by all water users in total to protect the "value" of the water body including sustainability, cultural and ecological aspects.

PC 9 sets interim limits for specific water bodies to hold the line until fully informed limits can be set for WMAs.



Source: A guide to the National Policy Statement for Freshwater Management 2014 (as amended 2017.

Limits for each WMA will be set over the next decade as significant work is required to support these. As a starting point you can look at the Bay of Plenty Regional Council (BOPRC) Allocation Report[4]. This provides an indication of the allocation status of the water body you plan to take water from. However this is only a snapshot in time (October, 2016), so please talk to us for assistance in determining up to date allocation information. In the near future, we intend to have a live, web-based groundwater allocation tool that can inform you in real-time of the status of mapped groundwater units throughout the region.

Determining the allocation status of your water resource is a critical step in preparing a consent application. PC 9 Policy WQ P3 seeks to phase out over-allocation by 1 October 2027 which means we need to avoid over-allocation now. For 'new consents'[5], the table below lets you know what you may expect in regards to your water resource depending on its allocation status.

Allocation status	What the allocation status means for you
Under allocated	The chance of securing a consent is more certain (subject to a full effects assessment).
Fully or over-allocated	For almost everybody, the chance of securing a consent is much lower (there are alterative options – see section 3.3.2 below). If you want to proceed regardless, the consent application will potentially be publically notified and PC 9 Policy WQ P10 directs decision makers to generally decline consent applications. This is also a more time consuming and costly route. However, this doesn't apply to those who took water before 16 October 2016 without consent (see section 2.1).

3.3.2 Alternatives in fully or over-allocated water resources

If you plan to apply for water from a fully, or over-allocated water resource, there are some alternatives you may want to consider and we can discuss your options with you:

- Reducing your rate of take to below the allocation limit (PC 9 Policy WQ P3).
- Change the timing of your take (rostering) – agree with a neighbouring consent holder to only take water when they are not taking water (PC 9 Policy WQ P3) (surface water only).
- Establishing water user groups and voluntary agreements between water users, provided that does not enable an increase in the actual volume of water abstracted.
- Sharing reductions with all users of the water resource.
- Transfer water from an existing consent holder (PC 9 Policy WQ P23).
- Water harvesting (PC 9 Policy WQ P6).
- Apply to take secondary flow water (reduced reliability) (PC 9 Policy WQ P8).

3.3.3 Processing consent applications – first in, first served

Water is a finite resource, and in New Zealand, we allocate water on a first in first serve basis. Note, where there are consent applications that if granted, may result in the full (or over) allocation of a water resource, we must process them in the order that they were received. If consent applications come in for a specific water resource faster than we can process them, these consent applications will form a 'queue'. In some cases, there may be a delay in your application, and should your consent application be the one that exceeds the sustainable allocation (after the previous ones have been processed), the scenario in section 3.3.1 for an over-allocated water resource will likely apply.

[4] https://www.boprc.govt.nz/media/635488/assessment-of-water-availablity-report-rev-11.pdf

[5] A new consent, is a consent that would be granted for the first time (i.e. is not a replacement consent). If your consent has already expired, and you did not lodge at least three months prior to it expiring, you also need to apply for a new consent.

However, people who have current consents that are due to expire, also get the opportunity (under the RMA) to replace their current consent before any new consents are processed (ahead of the queue). This process is designed to give current consent holders certainty, but also has the potential to free up water that is no longer being used.

3.4 Does my water take need a resource consent?

3.4.1 Criteria for needing a consent

If you only take water for domestic (household supply) or stock drinking water, then you do not need consent as the RMA provides this as a right.

For all other takes and uses of water, you will need to read the PC 9 Rules carefully to check whether or not you need consent. The common reasons for needing consent under PC 9 are:

- For groundwater takes where your property is:
  - Less than five hectares, you want to take more than 15 m^3/day.
  - More than five hectares, you want to take more than 35 m^3/day.
- For surface water takes you want to take more than 15 m^3/day.
- For all water takes you want to take more than 2.5 L/s at any time.

These are not all the criteria, so you will need to check Rules WQ - R1, R2 and R3 carefully. If you exceed any one of the criteria, you will require a consent.

When your proposed use of water does not need a consent, this is a called a 'permitted activity' water take. If you do not need consent, you do not need to follow the requirements for the rest of this leaflet, however you may still need a water meter if your water take is a permitted activity and will need to register and provide annual information to BOPRC (see section 4.7).

3.4.2 Choosing the correct Rule

If you require consent, you will need to select the correct Rule for your water take which will determine your 'activity status' (s87 of RMA). There are a number of activity statuses defined in the RMA, but it is most important to know that controlled activities must be granted, whereas all other types of activities can be declined (important for some water takers/users who took water before 16 October 2016 without consent (see section 2.1). There are two rules (WQ R4 and R5) in PC 9 that allow these unauthorised water takers to apply for consent as a controlled activity.

3.5 Proposed groundwater takes

If you intend to apply for a new resource consent to take groundwater, you need to do the following before you lodge your consent application to take water:

- Lodge a consent application and obtain a resource consent to drill and pump test a bore (see section 3.5.1).
- Drill and construct the bore(s) from which the groundwater will be taken (unless it already exists) (see section 3.5.1).
- Perform a pumping test/aquifer test on the bore(s). This will allow you or your consultant to determine certain effects of the proposed take, which will then form part of your consent application to take the water (see section 3.5.2 and 3.5.3).

Important note: It is likely we will reject your consent application for a new take of groundwater if you have not drilled/constructed your bore(s), performed a pump test, or analysed/presented the results.

If you intend to apply for a replacement resource consent, you will still need to assess all of the effects that a new groundwater take would, but you may be able to use a previous pump test undertaken on your bore or a neighbouring bore if it is relevant. If you're using a neighbours pump test analysis, this pump test would need to have been undertaken in a similar location, same groundwater resource (same geology and depth), at the same or a higher rate of abstraction than what is proposed and the results are of good quality. If you don't have any pump test information, we recommend that you should undertake a pump test.

3.5.1 Drilling a new bore

Bore permit: Before you drill a bore and complete the pumping test, you will first need to obtain a bore permit to drill and construct a groundwater bore[6]. Pump testing itself does not require a separate consent as it is an activity that is considered as part of the bore permit and will be subject to various conditions of that consent.

You can find the consent application form on our website.

You will need to provide a map showing (as a minimum):

- your proposed bore site including GPS coordinates;
- the geographical location of your property;
- the position of any existing bores on your property;
- the location of neighbouring bores and resource consents to take water in the surrounding area (suggested minimum radius of 500 m);
- any waterways close to your proposed bore regardless of the depth of your bore (minimum radius of 500 m).

The size of the area around your site to consider will depend on the scale of your take and local geology.

Please contact us to obtain details of existing bores and water take consents (both groundwater and surface water) in the area surrounding your property. Alternatively, this existing bore and consent information can be obtained using the online maps available on our website at https://maps.boplass.govt.nz/. There are two maps you will need to look at: bore/well locations and consents.

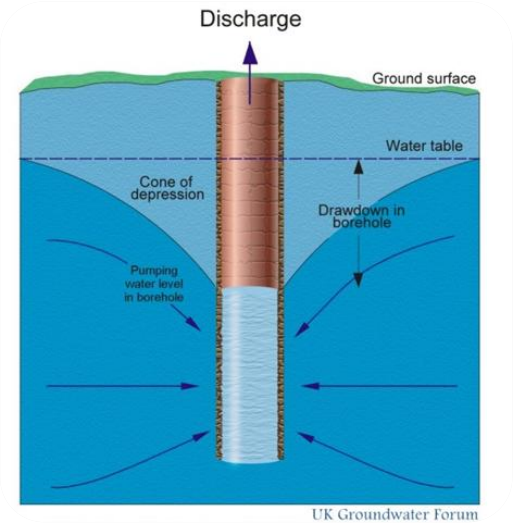
Construction: New bores must be constructed and managed in accordance with PC 9 Policy WQ P22. We recommend that you use an experienced and qualified driller to construct the bore. They should construct the bore in accordance with the NZS 4411:2001 Environmental Standard for Drilling of Soil and Rock.

Discharge Management: Before you apply for the bore permit, you will need to think about where the pumped water from the pump test is going to go. If it is discharged to land (for soakage), then it is covered under your bore permit. If you want to discharge to a water course, then you may need to apply for a discharge permit. Pumped test water is often full of sediment or 'fines' from drilling (or hot if geothermally heated), and can have an adverse effect on waterways. Appropriate sediment control (or heat management) will likely be required as part of the discharge consent in these cases.

[6] Rule 40B of the RNRP.

3.5.2 Pump testing a bore

Why do we test bores? Pumping tests (often called aquifer tests) are carried out to determine how much groundwater can be taken from a bore and to provide information on the potential effects of a groundwater take, for example on neighbouring bores or surface water flow.



Two types of pump tests are normally undertaken:

- A step test is used to assess how much water can be physically taken from a bore and its performance. The test involves pumping the bore at a low rate and then increasing the pumping rate in steps towards the maximum flow rate. While the bore is being pumped, the water level is measured in the bore itself.
- A constant rate test is undertaken to provide information on the aquifer properties and the potential effects of the new take, for example on neighbouring bores and streams. The bore is pumped at a constant rate (usually at or just above the proposed rate of take) and water levels are measured in the pumping bore and also in neighbouring monitoring bores. The results are used to predict the potential effects of the proposed take on all bores, not just those monitored during the test.

For artesian bores that flow without the need for a pump, the bore can be tested by letting the bore flow at the set rate and measuring the change in head (pressure) as if pumping.

Planning the constant rate test: Getting started: When planning the constant rate test it is useful to think about the purpose of the constant rate test, what you expect the effects from pumping the bore might be and how you are going to analyse the data. Careful planning of the constant rate test is important to ensure that the constant rate test provides sufficient information to support the consent application. We recommend that you engage a suitably qualified person to complete the testing for you.

During the constant rate test, it is important to measure the pumping rate, the groundwater levels in the test bore and neighbouring bores, and barometric pressure. After pumping stops, the groundwater levels should continue to be monitored until the water levels have recovered, ideally to the pre-constant rate test level. The results can then be analysed to determine the aquifer properties and subsequently used to predict the effects of the new take.

There is no set time for how long the bore should be pumped for during the constant rate test but it should be long enough to determine the effects of the proposed take. As a minimum, a 24 hour constant rate test is generally required, but longer tests may be needed for large takes such as community supplies, or in situations where it may take longer to observe a response in neighbouring bores or determine the effects of pumping, for example on surface water.

Monitoring bores: Before starting the constant rate test you will need to identify appropriate nearby bores to monitor during the test. We generally recommend that you monitor at least two bores, in addition to the pumping bore, but more may be required to fully determine the effects of the take.

You will need to select appropriate monitoring bores based on their location and depth and whether they are in the same aquifer as the pumping bore. It is useful to monitor at least one bore in the same aquifer as the

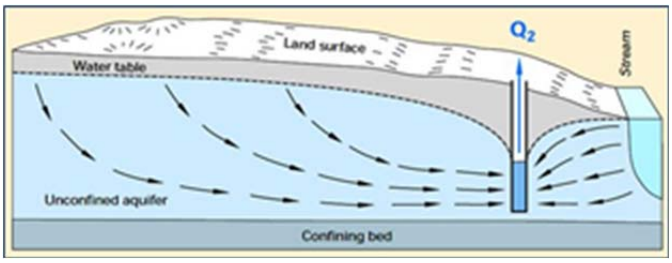
pumping bore, and it may be helpful to monitor bores in a shallower aquifer, if available. This helps provide information on the connection between shallow and deep aquifers if necessary, and also the potential for effects on stream flows.

We can provide information on neighbouring bores from our database, but you will need to visit the owners of the bores to get their permission to be monitored during the test. You should fully document any consultation with your neighbours in your consent application.

The monitoring bores should not be pumped during the constant rate test and should also be switched off beforehand to give enough time for the water levels to stabilise. If there are other bores pumping nearby that might affect the results of the constant rate test, these should also ideally be switched off prior to, and during, the constant rate test.

In practice, this may not be possible or you may find that the nearest bores cannot be monitored. If this is the case you should try to find suitable alternatives or, for example, consider undertaking the constant rate test during winter when less pumping for irrigation occurs.

Effects on surface water flows: Taking groundwater can intercept water that would normally make its way into surface waterways or increase natural recharge from these waterways. This can lead to what is known as 'stream depletion', where flow in surface water flows can reduce as a result of groundwater use.



Source: USGS

The constant rate test is important to help us identify the appropriate management approach, for example whether we need to completely avoid effects (decline consent applications) on fully or over-allocated surface water resources or impose consent conditions to protect under-allocated surface water resources.

We don't normally require stream flow to be monitored during a constant rate test. This is because it is very difficult to monitor stream flows accurately enough to clearly see the effect of pumping and eliminate other factors affecting the stream flow such as rainfall. When undertaken and analysed correctly the results of groundwater monitoring during a constant rate test are normally sufficient to assess the magnitude of a surface water depletion effect for the consent application.

However, in some rare situations, stream flow measurements during the constant rate test may also be helpful, for example if the bore pumping is likely to cause a significant and rapid reduction in stream flow.

3.5.3 Analysis of constant rate test results

There are a variety of analytical equations and numerical modelling packages that can be used to analyse the drawdown response observed during a pumping test. These need to be selected based on the aquifer setting and the type of response observed. Generally it is best to start with a simple analytical method, and then add complexity if required and if there is enough information to do so. We have a list titled 'Consultants Pump Testing and Analysis' on our website that lists consultants that can help with this analysis.

Part 4:
A guide to preparing your application

As outlined in section 2.2, the following provides a logical sequence for preparing a consent application to take water. If you have not read sections 2.2 and Part 3: , they provide useful information about what you need to consider before starting the application.

4.1 What to include in your application – the RMA

The RMA, Schedule 4 specifies the information that must be included in a consent application. For a consent application to be accepted by us for processing, you (or your consultant) should prepare an Assessment of Effects on the Environment (AEE) to accompany the application form to take water. The AEE should generally include the following information:

- a description of the activity;
- a description of the site at which the activity is to occur (include maps and if possible, photos);
- the full name and address of each owner or occupier of the site;
- a description of any other activities, permitted activities or approvals (consents etc.) required;
- a calculation of your water demand requirements (see section 3.2 below);
- a description of the surrounding environment (see section 4.2 below);
- an assessment of any actual or potential effects (see section 4.3 below);
- a description of the mitigation measures to prevent or reduce the actual or potential effects (see section 4.5 below);
- identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted (see section 4.6 and 5.1 below);
- any monitoring proposed and a description of how and by whom the effects will be monitored if the activity is approved (see section 4.7 below);
- if the effects are significant, a description of any possible alternative locations or methods for undertaking the activity;
- a statutory assessment of the activity against relevant plans, objectives and policies (see section 4.8 below);
- replacement consents only: an assessment of the value of the investment which is reliant of the existing water permit (irrigators, property etc.).

The level of detail and scale of effort required varies. We require more detail for larger takes, or if there is greater potential for adverse effects.

If you are writing a standalone AEE document, you will also need to fill out the relevant application form(s) on the BORPC website. There are specific application forms for each activity and you will need to use the correct application form in order for us to accept your consent application for processing. To find the correct form visit: https://www.boprc.govt.nz/our-region-and-environment/resource-consents-old/resource-consent-application-forms/.

- To take groundwater above the permitted levels you will need to complete application form 5B - Take and Use Groundwater.
- To take surface water above the permitted levels you will need to complete form 5A - Take and Use Surface Water (including intake structure).

4.2 Describing the existing environment

Describing the existing environment is important so that BOPRC know what exists around you, and what could potentially be affected. The following should generally be included in your consent application:

All water takes: For all water takes, you must provide:

- Information on the allocation status of the water resource you want to take from (we can help with this);
- Identification of relevant iwi who associate with the area (we can provide you with a list).

Groundwater takes: For all groundwater takes, you must provide:

- Bore details including depth, diameter, construction details and geological log;
- Local hydrological setting, including details of nearby bores/groundwater takes, streams and a description of the aquifer;
- Pumping test(s) details including data analysis and estimated aquifer properties.

Surface water takes: For all surface water takes, you may need to provide information including:

- Your proposed screen intake arrangement;
- The hydrology (flow statistics), aquatic ecology and water quality. You don't always need to provide this, but if you do, we may have data that can assist. Otherwise you may need to undertake some monitoring to gather some data to support your consent application;
- Details of existing downstream users.

4.3 Expiring consents being replaced

If your consent is expiring and you are lodging a 'replacement' consent application, you will need to consider the following:

- s124 of the RMA says that if you lodge your consent application at least 6 months before the expiry date, you can continue using your existing consent after it has expired until a decision is made on your consent application. You can lodge it between 3 and 6 months before the expiry, but it is at our discretion whether we allow you to continue using your existing consent between the expiry date and when a decision is made on your consent application. If you lodge between 0 and 3 months before the expiry of your consent, you cannot continue using your existing consent after the expiry date if there has not been a decision made on your consent application at this time.
- PC 9 and RMA s104(2A) both require you to tell us the value of investments which are reliant on the water take (includes bore, pumps, property etc.).

Important note: It is called a 'replacement' and not a 'renewal' because the term 'renewal' implies you are guaranteed to get another consent granted, which is not always the case. For a replacement consent application, generally all effects of the proposal need to be reconsidered as if it were a 'new' application[7]. This is a requirement of the RMA and reflects the fact the environment and policy framework would have changed since you obtained your last consent.

[7] Controlled and restricted discretionary activities only need to consider those matters listed in the relevant rule.

4.4 Effects assessment

4.4.1 Considering effects for ALL water takes

Positive effects: To give yourself the best chance of securing consent, you should describe the positive effects of your water take. Our role is to make a decision on your consent application by balancing positive effects against adverse effects. You should not leave out this detail. Positive effects include revenue generated, employment opportunities and contribution to the local, regional and national economy.

Cultural effects: You must consider the cultural effects of your water take (groundwater or surface water). The RMA and regional planning documents direct BOPRC to do so. To assess cultural effects, you generally have three options available as follows:

1 Provide an assessment of your proposed activity against the above policies, outlining why you think your proposal is in line with the policies (or does not contravene the policies); and/or

2 Consult with tangata whenua directly to determine potential cultural effects (see below); and/or

3 Engage a suitably qualified and experienced consultant to prepare a cultural impact assessment (CIA).

Note: The Bay of Plenty Regional Policy Statement (RPS), Policy IW 2B states "*that only tangata whenua can identify and evidentially substantiate their relationship and that of their culture and traditions with their … water….*". Although the RMA does not require consultation, the RPS means that options 2 or 3 (above) are generally the best and preferred way of determining cultural effects.

If required, a potentially affected iwi or hapū may ask you to undertake a cultural impact assessment (CIA) or cultural values assessment (CVA) at your cost. BOPRC can give you advice on which tangata whenua may have an interest in the water resource you are proposing to take from. In the near future, we intend to have a public GIS layer on our website to provide this information.

Allocation effects: By now, you should know your allocation status (as outlined in section 3.1). In your AEE, you need to consider what effect you will have on the sustainability of the resource. You will need to add on the proposed amount of water that you want to take, onto the amount already allocated to other users. If you do not exceed the PC 9 allocation limit, it is considered sustainable from an allocation perspective. If your proposed take will over-allocate the water resource, your effects on the sustainability of the resource will need to be considered much more carefully.

Note: Groundwater is normally allocated on a 'yearly' basis. As such you should consider the amount of water you want to take over a year, and compare this to the annual sustainable allocation limit. Surface water is normally allocated on an 'instantaneous' basis. As such you should consider the rate of water you want to take on a 'litres per second' basis, and compare this to the instantaneous sustainable allocation limit.

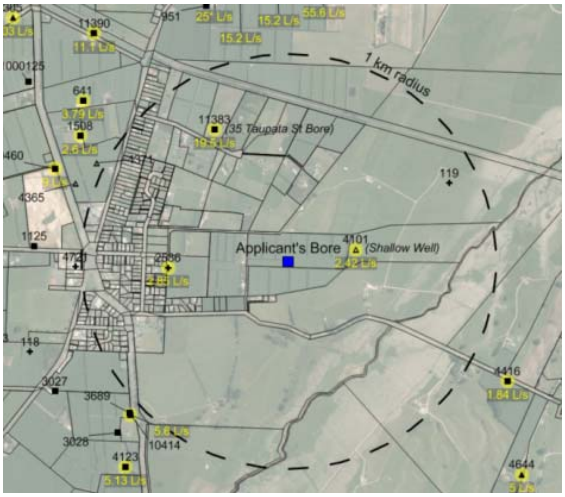
For each adverse effect: Your AEE needs to describe every effect and the scale of those effects. If you are not familiar with RMA planning processes, it might be easiest to describe the scale of the effects in simple language, using words such as 'minimal', 'noticeable' and/or 'significant'. For example you might describe a drawdown effect on a neighbouring bore as:

- "Minimal" if the effect is not likely to be noticed by a neighbouring bore owner.
- "Minor" or "noticeable" if the drawdown effect could be noticed and would potentially lead to an adverse effect on the bore operation.

If the effect is likely to be minor or more than minor, then you should consider any actions you can take to mitigate the effect.

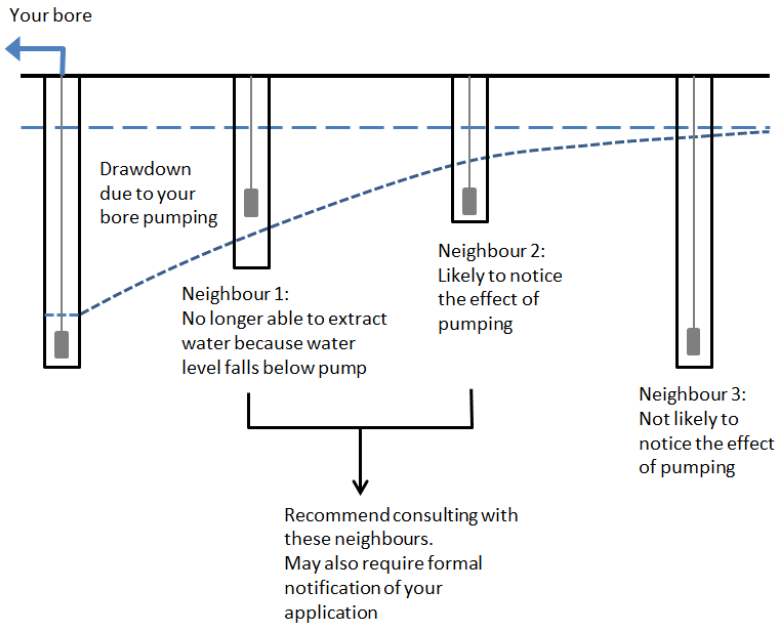
4.4.2 Determining effects of your groundwater take

Assessing effects on neighbouring bores: The effects of your proposed take on groundwater levels in neighbouring bores need to be assessed. Each pumping bore will draw water from the surrounding aquifer, resulting in a drop in pressure in a confined aquifer, or a reduction in the water table in an unconfined aquifer. This is known as the drawdown or 'interference effect' where it has a measureable effect on other bores.



You should estimate the potential drawdown interference effect on neighbouring bores (e.g. metres of drawdown) and consider whether the effect is likely to be noticeable.

In general, if the water level in a neighbour's bore is well above their pump then their bore will be less sensitive to changes in the water level caused by your bore pumping. Although the effect may not prevent the owner from drawing water from the bore, the effect may be noticeable and may cause a change in the operation, and potentially increase pumping costs. However, if the water level in a bore falls below the pump intake, then the owner won't be able to extract water.



The diagram to the left illustrates this example: In your consent application, when assessing the significance of potential drawdown interference effects, you should consider factors including the water levels (including natural seasonal variations), total bore depth, casing depth, pump depth and the existing "self-induced" effects of pumping (depending on data availability). Often, the information available regarding nearby bores can be limited. In this case it may be necessary to either make assumptions about those bores which would be a conservative "worst case scenario" regarding the effects on those bores, or contact neighbouring bore owners to obtain missing details.

Generally you should look at the effect of a new take relative to the "available drawdown" and how much drawdown the neighbouring bores are likely to require (i.e. their own self-induced drawdown).

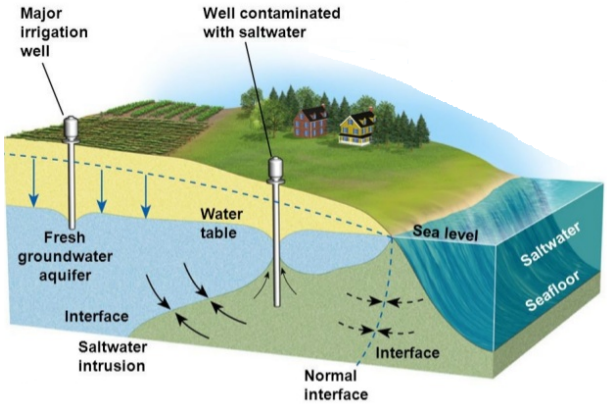
- The available drawdown is the difference between the low static water level (what might be observed in a dry year) and the depth at which the pump cannot produce the desired yield.
- The self-induced drawdown is how much drawdown they observe in their bore caused by their own pumping.

In the following example the “available drawdown” is 30 m and the self-induced drawdown is 20 m. A drawdown interference effect of more than 10 m would likely adversely affect their bore operation. However, if the bore was much deeper or the drawdown interference effect was smaller, the effect might not be noticed.

In areas where there are already a number of groundwater abstractions, the cumulative drawdown effects of these takes, in combination with your take, need to be considered.

Effects on surface water bodies: PC 9, Policy WQ P9 now recognises the ability for groundwater takes to adversely affect surface water flows. The pumping test will help identify your potential effects on surface water flows. If there is likely to be an effect on surface water from your proposed activity, you will need to consider the surface water environment, effects on the surface water resource (including allocation) and mitigation (potentially including low flow restrictions).

Effects on saline intrusion: As a general rule of thumb, if you are proposing to take from an unconfined aquifer within 1 km of the coast or an estuary, or in a confined aquifer within 5 km of the coast or an estuary, you will need to consider whether your groundwater take has the ability to draw salt water into the aquifer and/or your bore or neighbouring bores, or cause an inland movement of the salt water/fresh water interface. In severe cases this can be a serious and sometimes irreversible effect.



Source: Thomson Higher Education, 2007.

The pump test, combined with other considerations (e.g. the geological setting and bore construction) will help identify the potential saline intrusion effects associated with your proposed take.

If your proposed take is considered to be at risk of causing saline intrusion, you will need to carefully consider how to manage your take. Groundwater takes outside of the distances noted above are unlikely to be at risk of causing significant saline intrusion in isolation, however this can be dependent on many factors. Accordingly it is best practice to at least consider saline intrusion effects no matter where you are, especially in terms of the potential cumulative effects of multiple water takes.

Subsidence effects: Land subsidence can occur when certain (compressible) soil or sediment layers become dewatered or depressurised as a result of groundwater abstraction. Most groundwater takes in the Bay of Plenty region do not require special consideration of subsidence effects unless significant drawdown is expected.

4.4.3 Determining effects of your surface water take

Screen intake effects: Surface water intakes that sit above the bed of a surface water body are a permitted activity (not requiring consent) under Rule 52 of the RNRP. There are a number of conditions you must meet to retain this permitted activity status. In regards to the take of water and potential effects from taking water, the main conditions are as follows:

The intake structure shall be screened with a mesh aperture size:

(i) Not exceeding 3 mm by 30 mm in the tidal areas of rivers and streams.

(ii) Not exceeding 5 mm by 30 mm or 5 mm diameter holes in any other area that is not in the tidal area of a river or stream.

PC 9 Rule R3 also states that a permitted surface water take must not have an intake velocity through the screen that exceeds 0.3 m/s. Generally if you comply with the permitted activity mesh aperture size and intake velocity conditions above, you should not have to assess the effects of your screen intake unless there are sensitive ecological conditions. If you exceed the mesh aperture size and intake velocity conditions above, you will need to assess the effects of your screen intake on instream ecology to make sure you are not impinging aquatic fauna (fish etc.) or pulling them through your intake system (larvae etc.).

Hydrology, ecology and water quality effects: If your take is within the sustainable allocation limit for the applicable surface water reach and has an appropriate minimum flow, then effects on hydrology, ecology and water quality have probably been accounted for. If you are over-allocating the water resource or there is anything unusual about your take, like a secondary flow take or you are exceeding the allocation limit, you may have to consider how your proposed take affects these aspects of the surface water body.

Other effects: There are other potential effects such as impacts to the salt water/freshwater interface (near the mouth of rivers), or effects on the riparian margin, however the previously mentioned effects are the most common.

4.5 Mitigation

The purpose of mitigation for your water take can be twofold. Firstly to ensure the effects on the environment or other people are minimised such that those parties are no longer affected. Secondly to improve your chances of securing a non-notified consent which could save significant time and cost.

If your effect is generally on a person such as an affected neighbouring bore owner (as opposed to the wider environment), you can obtain a 'written approval' from that party for your proposed take. However to gain this written approval, the party may want you to 'mitigate' the effects.

4.5.1 All water takes

Cultural effects: Iwi may also ask you to mitigate the cultural effects in a number of ways (potentially including riparian planting, design modifications, cultural monitoring etc.).

Allocation effects: For all applicants, mitigating your effects may not be sufficient if you are applying for a consent in a fully, or over-allocated water resource. Considering the options in section 3.3.2 may assist.

4.5.2 Groundwater takes

Neighbouring bore interference effects: If your proposed groundwater take is likely to cause interference effects of concern on neighbouring bores, then you can offer to lower the affected bore owner's submersible pump, provide a deeper bore, or supplement their water supply at times their supply is affected.

Surface water effects: If your proposed groundwater take is likely to adversely impact flows in a surface water body, it may be appropriate for you to suggest that you restrict your abstraction when surface water flows are low, much like a surface water take.

Saline intrusion: This should be carefully managed if there is a risk your take could induce saline intrusion. Monitoring the salinity of water in your bore and/or other bores closer to the coast may be necessary to manage the risk. If an increase in salinity is detected, you may need to limit the time you take or reduce your pumping rate to completely avoid saline intrusion.

4.5.3 Surface water takes

Screen intake effects: Should it require it, you may need to consider how to reduce the water velocities going into and passed your screen, or implement some form of fish exclusion device.

Hydrology, ecology and water quality effects: See mitigation options for 'surface water effects' above.

4.6 Consultation

Firstly, it is important to note that the RMA says there is no requirement to consult with any person or party (s36A). However consultation is considered best practice, and the RMA says that you have to identify '*persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted*'.

If you think there is potential for an adverse effect on a neighbouring bore, iwi and/or hapū entity or any other person/organisation, we strongly recommend that you consult with them prior to submitting the consent application.

If there are actually or potentially affected parties and you are able to obtain written approval, we have to disregard effects on them in our assessment, which mean you will avoid limited notification of you consent application on these people.

4.7 Monitoring requirements

The Ministry for the Environment introduced rules around metering in 2010. If you are taking 5 litres per second or more, you will need to install and maintain an accurate water meter, and importantly, keep accurate records of the daily take.

PC 9 Policy WQ P24 establishes a more specific set of criteria for the Bay of Plenty for when you need to install a water meter, when you do not, and the frequency at which you must submit your records to us. Note, if you do not need consent, you still need to read this table carefully.

Activity status and source of water	Meter	Report frequency
Property size 5 ha or more stock drinking water and/or permitted use does not exceed 35 m^3/day (ground water) or 15 m^3/day (surface water).	Not required	Not required
Property size less than 5 ha stock drinking water and/or permitted use does not exceed 15 m^3/day (ground water or surface water).	Not required	Not required
Stock drinking water and/or permitted use exceeds 35 m^3/day (groundwater and property exceeds 5 ha) or exceeds 15 m^3/day (surface and groundwater and property less than or equal to 5 ha).	Yes. Will require 2 meters if RMA section 14(3)(b) and permitted activity water used.	Monthly unless rate of take exceeds 2.5 L/s (surface water) or 5 L/s (groundwater).
Consent groundwater rate of take equals or exceeds 5 L/s.	Yes	Daily
Consent groundwater rate of take less than 5 L/s.	Yes	Monthly
Consent surface water rate of take equals or exceeds 2.5 L/s.	Yes	Daily
Consent surface water, rate of take less than 2.5 L/s.	Yes	Monthly

4.8 Statutory assessment and what it means

This is an often overlooked component of many consent applications, potentially because plans can be hard to read, may seem repetitive and the process can be time consuming. However you should attempt to assess how your water take fits with the relevant water legislation (regional plan etc.), primarily because the RMA requires it.

When we process a consent application, we check how well your proposed activity fits in with these plans. Plans are a blueprint to inform us of what direction water resource management should be heading and the outcomes they hope to achieve. If you require consent and your water take is inconsistent with some or many objectives or polices, you will want to know early so you can adapt your consent application.

Relevant legislation is descending order is:

- Resource Management Act 1991;
- National Policy Statement Freshwater Management 2014 (amended 2017);
- Bay of Plenty Regional Policy Statement 2014;
- Regional Natural Resources Plan 2008 (PC 9 - 2018).

If a plan is current (such as PC 9), it may be good enough to just review PC 9. We can help you with which plans you should review, or a consultant can help you.

Part 5:
Consent application processing - our role

5.1 Lodgement and requests for further information

We will only accept resource consent applications that include all the necessary information, unless the information that is missing is very minor and can be asked for as further information. If applications are considered to be incomplete we will send them back within 10 working days after you lodge your application. If you are uncertain whether you have included everything, please call us before you submit the consent application as we can review your application and see if there is anything obvious missing. An incomplete consent application will likely be returned if any of the information in Parts Part 3: and Part 4: is missing.

5.2 Notification assessment

Once your consent application to take water has been accepted by us, we will consider the level of effects your proposed take will have on the environment and/or other people. We can take one of three approaches described in the following table.

If we notify (limited or publicly) your consent application, we will typically consult with you before doing so. We look at the effects of the take on the wider environment and consider the overall sustainability when making our decision. We may consider that there are adverse effects on some affected people and potentially limited notify it, but if the actual or potential effects on the wider environment are more than minor we will publically notify it. If we notify your consent application, we will ask for feedback on your proposed take (through submissions) from either the general public or specific individuals (known as affected parties). A hearing may be required before we decide whether to grant or decline the consent.

Important note: As well as adverse environmental effects, we are also required to consider adverse cultural effects. If you have not assessed these effects (as outlined in section 4.4), or we consider the scale of effects to warrant it, then relevant iwi or hapū may be considered affected and require written approval or the consent application will be limited notified to them.

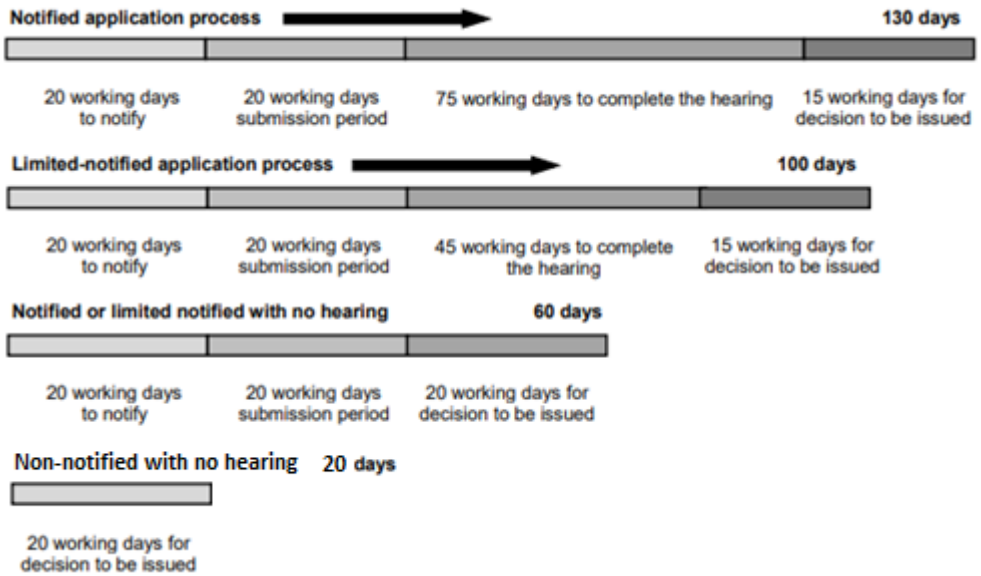
Notification type	What does it mean legally within the RMA	Example for new groundwater take
Non-notified application	**Either:** 1 The effects of your take on the environment or persons are less than minor. **OR** 2 The effects of the take on any person are minor or more than minor but you have obtained written approval from everyone who might be adversely affected.	**For example:** 1 Drawdown at neighbouring bores is predicted to be very small and unlikely to be noticed or effects on surface water bodies are negligible. **OR** 2 Drawdown at a neighbouring bore could be noticed, but your neighbour has signed a written approval form approving your new take.

Notification type	What does it mean legally within the RMA	Example for new groundwater take
Limited notification	Only people who are adversely affected by an application are notified by us and only they can make a submission on your consent application.	Drawdown at a neighbouring bore could be noticed, and your neighbour has not given written approval for the take because they think it may cause an adverse impact on the operation of their bore (and this hasn't been mitigated). **OR** Effects on an iwi are at least minor.
Publically notified application	Effects on the environment are more than minor. Any person/ organisation can make a submission on the consent application.	Complex water take with uncertain effects or water take in a fully or over-allocated water resource.

5.3 Decision-making

Ultimately, the adverse effects or your take will be balanced against the positive effects or your take. The purpose of the RMA is to achieve 'sustainable management'. If we consider the effects are acceptable and the proposed take achieves sustainable management, then we will grant your non-notified consent, or we will recommend to a delegated decision maker (if notified) that you consent be granted.

We have general conditions which we will apply to your consent, and will apply situation-specific conditions if there are any particular effects we want to manage. The following shows a guide for timeframes provided for under the RMA, however this does not include time for delays such as further information being requested etc.



Part 6:
Summary of the information we can provide

Before preparing your consent application we recommend that you contact us to discuss or obtain the following information:

- A calculation for how much water you need for irrigation;
- The water allocation status for your proposed water resource, or data to help calculate this;
- Guidance on the relevant rule and activity status, plus relevant plans you must consider;
- For groundwater takes: details of existing bores and takes in the area surrounding your proposed take, and guidance on what your pump test should try and demonstrate;
- A list of potentially affected iwi.

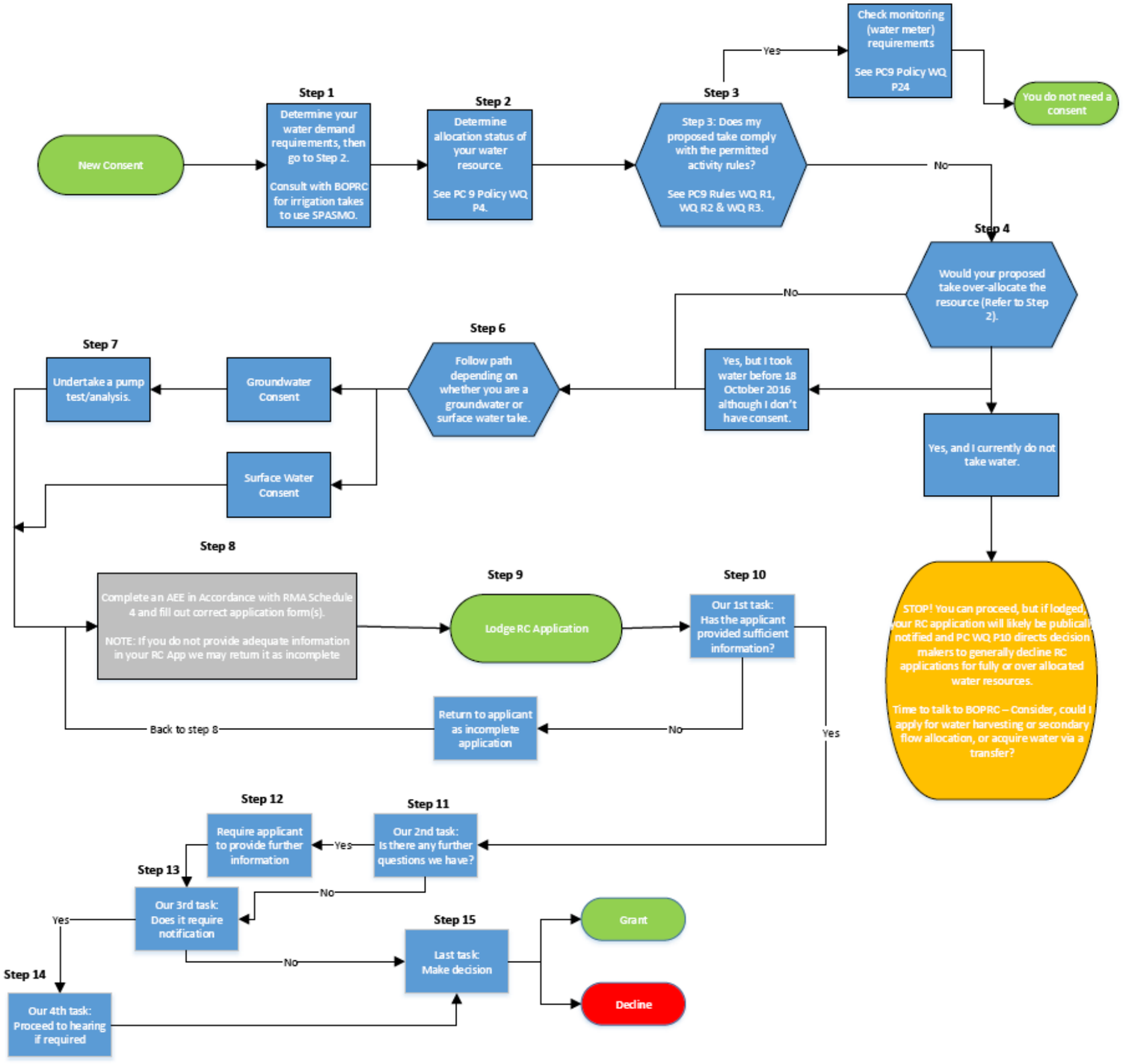
Part 7:
Likely costs

Because every application is different, it's not possible to estimate what it will cost to get your water take consent, however:

- We provide the first hour of advice free of charge.
- s36 enables us to recover costs from processing your consent application. The time charged will generally be associated with a Resource Consent Officers' time, any specialists' time (such as Ecologists, Groundwater Scientists etc.), and any time required by a Hearings Panel should you consent application be notified and proceed to a hearing.
- A deposit fee is required at the time of lodging your consent application and it won't be received and processed by Council until this has been paid.
- You can find the current deposit fees, staff charges and other information about consent application costs at https://www.boprc.govt.nz/our-region-and-environment/resource-consents/understanding-resource-consents-and-the-process/.

Part 8:
Further information

To request a meeting about your consent application or to request data/information about your consent application, please contact a BOPRC Duty Planner on 0800 884 880. Additionally further information can be found on our Resource Consents webpage at https://www.boprc.govt.nz/resourceconsents.


New Consent
Step 1
Determine your water demand requirements, then go to Step 2.
Consult with BOPRC for irrigation takes to use SPASMO.
Step 2
Determine allocation status of your water resource.
See PC 9 Policy WQ P4.
Step 3
Step 3: Does my proposed take comply with the permitted activity rules?
See PC9 Rules WQ R1, WQ R2 & WQ R3.
Yes
Check monitoring (water meter) requirements
See PC9 Policy WQ P24
You do not need a consent
No
Step 4
Would your proposed take over-allocate the resource (Refer to Step 2).
No
Yes, but I took water before 18 October 2016 although I don't have consent.
Yes, and I currently do not take water.
Step 6
Follow path depending on whether you are a groundwater or surface water take.
Groundwater Consent
Step 7
Undertake a pump test/analysis.
Surface Water Consent
Step 8
Complete an AEE in Accordance with RMA Schedule 4 and fill out correct application form(s).
NOTE: If you do not provide adequate information in your RC App we may return it as incomplete
Step 9
Lodge RC Application
Step 10
Our 1st task: Has the applicant provided sufficient information?
Back to step 8
Return to applicant as incomplete application
No
Yes
STOP! You can proceed, but if lodged your RC application will likely be publically notified and PC WQ P10 directs decision makers to generally decline RC applications for fully or over allocated water resources.
Time to talk to BOPRC – Consider, could I apply for water harvesting or secondary flow allocation, or acquire water via a transfer?
Step 12
Require applicant to provide further information
Yes
Step 11
Our 2nd task: Is there any further questions we have?
Step 13
Our 3rd task: Does it require notification
Yes
No
Step 14
Our 4th task: Proceed to hearing if required
Step 15
Last task: Make decision
Grant
Decline